Technical Procedure for General Laboratory Equipment

Version 3

Effective Date: 10/31/2013

- **1.0 Purpose** This procedure specifies the required elements for the use of general laboratory equipment.
- **2.0 Scope** This procedure applies to refrigerators in the Latent Evidence Units of the State Crime Laboratory.
- **3.0 Definitions -** N/A
- 4.0 Equipment, Materials and Reagents
 - 4.1 Equipment
 - Latent refrigerators
 - 4.2 Materials and Reagents
 - N/A
- 5.0 Procedure
 - 5.1 Procedure for Latent Evidence Refrigerators
 - 5.1.1 Standards and Controls
 - **5.1.1.1** Each refrigerator in the Latent Evidence Unit shall have the temperature recorded and monitored by a Forensic Scientist Manager, Evidence Technician, or designee.
 - **5.1.1.2** Any refrigerator that is out of tolerance or shows any other refrigeration problems shall be reported to the Latent Evidence Technical Leader who will evaluate the nature of the problem and propose a solution.
 - **5.1.1.3** Prior to use, new refrigerators shall be monitored and the temperature recorded hourly (during business hours) with a NIST traceable thermometer until the temperature remains in the appropriate range for 24 hours.
 - **5.1.2** Calibrations N/A
 - 5.1.3 Sampling N/A
 - **5.1.4** Application of Procedure on Evidence
 - **5.1.4.1** The acceptable temperature range of each refrigerator shall be 2 $^{\circ}$ C to 8 $^{\circ}$ C (36 $^{\circ}$ F to 45 $^{\circ}$ F).
 - **5.1.4.2** Each refrigerator with a manual temperature chart shall have the chart initialed each week by a Forensic Scientist Manager, Evidence Technician, or designee to signify temperature verification.
 - **5.1.4.3** All charts shall be labeled with the refrigerator serial number, if present.

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5.1.4.4 Records of the temperature monitoring shall be maintained in the Latent Evidence Unit.

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- **5.1.4.5** Thermometers used to monitor the temperature of each refrigerator shall be verified annually by a Forensic Scientist Manager, Evidence Technician, or designee using a Certified NIST traceable thermometer. If a refrigerator is found to be out of compliance with the criteria established in **5.1.4.1**, the Latent Evidence Technical Leader shall be notified immediately.
- 5.1.5 Calculations N/A
- **5.1.6** Uncertainty of Measurement N/A
- **6.0** Limitations N/A
- 7.0 Safety N/A
- **8.0 References -** Manufacturer's information for each model of refrigerator.
- 9.0 Records
 - Temperature control record for Latent Evidence refrigerator.
- **10.0** Attachments N/A

Revision History		
Effective Date	Version Number	Reason
05/14/2013	1	Original Document
05/30/2013	2	5.1.1.2 – changed subject/verb agreement from singular to plural and the accepted temperature range; 5.1.1.3 - added requirement for new refrigerator; 5.1.4.1 – changed subject/verb agreement from plural to singular; 5.1.4.2 – changed subject/verb agreement from plural to singular and changed the frequency of temperature monitoring from daily to weekly; 5.1.4.5 – verification of thermometers using Certified NIST traceable thermometers
10/31/2013	3	Added issuing authority to header

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